

- ◆ Instantaneous Domestic Hot-water Heaters (base wide)
- ◆ Computer Automated Environmental Control, Energy Management & Metering System
- ◆ U.S. Green Bldg Council (USGBC) Leadership in Energy and Environmental Design (LEED) Gold certified Life Support Addition
- ◆ Re-lamping/reduced lamping of the aircraft parking ramp
- ◆ CE grounds & maintenance fleet converted to bio-diesel
- ◆ Solar powered Environmental Operations Facility

- ◆ Window replacement
- ◆ Air conditioning upgrades (base wide)
- ◆ Thermal Equalizers
- ◆ USGBC LEED Silver Certified Construction: Multi-use Facility, Fire Station Addition, and MSA Construction

Check out *Green Energy Ohio* (<http://www.greenenergyohio.org/page.cfm?pageID=3>) for information on renewable energy sources (solar, wind, hydropower, biomass).



reduce your energy demand and save money on heating, cooling, windows, lighting, appliances, home office, and vehicles.

Tax Credits, Rebates, and Savings
<http://energy.gov/savings>

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Energy Conservation

Why Conserve Energy?

Rising energy costs and competition, along with reduced energy sources (limited fossil fuels), and environmental pollution from energy sources (CO₂, nuclear, and hazardous waste) are just a few reasons to conserve energy.



Efficient energy management at federal facilities and operations can:

- ♦ Save taxpayers money
- ♦ Reduce greenhouse gas emissions
- ♦ Protect the environment and natural resources
- ♦ Contribute to the preservation of our national security

180th FW Energy Management Program (WI 90-17)

The 180th FW's energy strategy addresses all aspects of energy usage and generation across the installation and includes the following components:

- ♦ Energy awareness and Education
 - ♦ *October is Energy Awareness Month*
- ♦ Reduce demand
 - ♦ *Energy conservation practices and projects*
- ♦ New Energy sources
 - ♦ *Renewable energy production/purchases*

180th FW Energy Goals

To bring the 180th FW in compliance with EAct 2005, Executive Order (EO) 13423 and the State of Ohio EO 2007-02S, the following goals have been established as operating objectives for base energy use, conservation, and increase in supply:

- ♦ Reduce aviation fuel consumption by 10% by 2015 (2006 baseline).
- ♦ Reduce ground fuel use by 2% through 2015 (2005 baseline).
- ♦ Reduce utility costs by 20% by the end of FY 2012 (2007 baseline).
- ♦ Reduce facility energy use by 20% by FY 2015 (FY 2007 baseline).
- ♦ Reduce water use by 2% per year through FY 2015 (FY 2007 baseline).
- ♦ Increase renewable energy use by 5% by FY2012, 7.5% by FY2020, and 25% by 2025 (2007 baseline).
- ♦ Increase renewable energy production or procurement by 10% per year through 2015.



Energy Conservation efforts at the 180th FW (Over \$18 Million invested)

- ♦ Solar field construction (1.52 MW operation) with \$450,000 total savings since inception (Prevented 1,190 tons of coal from being burned and releasing 3,400 tons of CO₂ into the atmosphere).
- ♦ Generate over 2,900 MWhrs of solar electricity (Provides approximately 29% of electricity and 14.5% of all base facility energy consumed).
- ♦ Solar reflective roofing and insulation
- ♦ LED Exterior lighting (parking lots, streets, & buildings)
- ♦ Occupancy lighting sensors and installation of the Light Management System
- ♦ Solar recharged electric operated vehicles
- ♦ Solar array systems Baker, Multi-Use, Munitions Storage, and Fire Station Bldgs
- ♦ Window replacements
- ♦ Energy efficient boiler systems
- ♦ New Air conditioning system

Energy consumption in Ohio's industrial sector ranks among the highest in the nation (U.S. EIA 2009)